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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SRIVASTAVA, VIVEK

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 03/04/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

16

Office Action Summary

Application No.
09/454,216

Applicant(s)
Donald Gordon et al

Examiner
Vivek Srivastava

Art Unit
2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 7, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 9, 11-17, 19-30, 36, and 37 is/are rejected.
- 7) ☒ Claim(s) 5, 8, 10, 18, and 31-35 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6, 7, 9, 12-17, 19-30, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiga in view of Khansari et al.

Considering claims 1, 12, 23, and 36 Shiga discloses a method for generating a bit stream and forming a user interface to be transmitted in a packet bitstream to a plurality of terminal units, wherein the user interface includes a guide portion and a video portion (fig 8, fig 9, fig 15, fig 16, fig 21, col 4 line 48 - col 5 line 26).

Shiga discloses encoding video frames but fails to disclose sliced-based encoding by defining a first portion of a video frame with a first set of slices and defining a second portion of a video frame with a second set of slices and encoding the first and second set of slices. Khansari teaches by coding a frame using slices enables reconstruction of GOB if the GOB containing slices of the picture is lost (Abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Shiga to include the claimed

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limitations to provide reconstruction of GOB if one of the GOPs containing slices of the picture is lost.

Regarding claims 2, 3, 4, 6, 7, 15, 16 and 17 Shiga discloses intra-coding and predictive coding of the video portion of the video streams and the claimed GOP (col 4 line 47 - col 5 line 61, inherent in MPEG compression). It would have been obvious to modify Shiga to include slice-based encoding to enable reconstruction of GOP if one of the GOP's containing slices of the picture is lost. Therefore, it would have been obvious to one having ordinary skill in the art to modify Shiga to include the claimed encoding a second set of slices per GOP and the third and fourth set of slices performed multiple times per GOP to enable reconstruction of GOP if one of the GOP's containing slices of the picture is lost.

Considering claim 9, Shiga discloses encoding a plurality of audio streams, each audio stream associated with a corresponding video stream (col 4 lines 48 - 67, col 5 lines 46 - 60).

Considering claim 13, Shiga discloses where the first set of packets are identifiable by a first set of packet identifiers (col 14 line 27 - col 15 line 45).

Considering claim 14, Shiga discloses where the second set of packets are identifiable by a second set of packet identifiers (col 14 line 27 - col 15 line 45).

Considering claim 19, Shiga discloses the claimed third said of packets including a plurality of audio streams (fig 1, col 4 line 48 - col 5 line 61).

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Considering claims 20 and 22, Shiga discloses wherein the plurality of video streams comprise full motion video streams which can be retrieved with a demultiplexor and decoder at a receiving terminal without assistance from a microprocessor (fig 23 items 24, 25, 26).

Considering claim 24, Shiga discloses wherein the full motion video streams can be retrieved with a single tune at the receiving terminal (fig 23 item 21).

Considering claims 21 and 25, Shiga discloses wherein the full motion video stream can be played interchangeably with a single tuner at the receiving terminal (fig 23 item 21).

Considering claim 26, Shiga fails to disclose wherein the encoded first set of slices for the guide portion for the plurality of guide pages is sent as an elementary stream. Since it would have been obvious to modify Shiga to include slice-based encoding it would have been obvious to modify Shiga to include encoding a first set of slices for the guide portion for the plurality of guide pages for transmission as an elementary stream to enable reconstruction a GOP of the guide portion if one of the GOP's containing slices of the picture in the guide portion is lost.

Considering claim 27, Shiga fails to disclose wherein the encoded first set of slices for the guide portion for the plurality of guide pages and the encoded second set of slices for the video portion for the plurality of video streams are sent as a single transport stream. Since it would have been obvious to include slice-based encoding in shiga it would have been obvious to encode a first set of slices for the guide portion for the plurality of guide pages and a encode a second set of slices for the video portion for the plurality of video streams for transmission as a single

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transport stream to enable reconstruction a GOP of the guide portion or video portion if one of the GOP's containing slices of the picture in the guide portion or video portion is lost.

Considering claim 28, Shiga discloses wherein each of the plurality of guide pages can be recombined with any one the plurality of video streams to form a program guide page (program guide can be displayed with any video stream - col 7 lines 10 - 65, fig 5).

Considering claims 29 and 30, Shiga discloses wherein one of the plurality of video streams are selectable and interchangeable displayed by selecting and recombining a video stream with a particular guide page (col 7 lines 10 - 65, fig 5, EPG guide can be displayed with any video stream in the background).

Considering claim 37, Shiga discloses wherein the plurality of first streams comprise a plurality of guide pages and the plurality of second streams comprise a plurality of video streams (col 4 lines 48 - 67, col 5 lines 20 - 25, col 6 lines 26 - 34).

Allowable Subject Matter

3. Claims 5, 8, 10, 11, 18, 31, 32, 33, 34 and 35 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Response to Arguments

The Applicant's argue that "It is important to note that the Shiga reference does not utilize any of the slice-based or slice-layer processing techniques of the claimed invention". Also, the Applicant's argue that "the Khansari arrangement does not provide an means for discerning between a guide portion and a video portion of video data to be encoded such that distinct sets of slices may be created for such portions of imagery to be encoded."

The Examiner notes that Applicant's repeatedly attack each reference individually. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The Applicant's repeatedly argue that Shiga fails to disclose slice-based encoding. The Examiner concurs with Applicant's findings. However, the concept and advantages of slice-based encoding are well known in the art.

Shiga discloses encoding EPG data and also discloses encoding video streams separately. Khansari teaches the advantage of slice-based encoding as discussed in the rejection above. Based on the motivation provided by Khansari, one having ordinary skill in the art would have been motivated to combine Shiga and Khansari to teach the claimed invention.

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Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CAR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

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(703) 308- 5399 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal
Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner
should be directed to Vivek Srivastava whose telephone number is (703) 305 - 4038. The
examiner can normally be reached on Monday - Thursday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Andy Faile, can be reached at (703) 305 - 4380.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the group receptionist whose telephone number is (703) 305 - 3900.

VS 2/27/01


VIVEK SRIVASTAVA
PATENT EXAMINER